Pantheon Report

Generated at 2018-08-22 18:59:19 (UTC).
Data path: Stanford ppp0 ppp0 (remote) → AWS California 1 Ethernet (local).
Repeated the test of 17 congestion control schemes 3 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against time.stanford.edu and have been applied to correct the timestamps in logs.

System info:
Linux 4.15.0-1017-aws
net.core.default_qdisc = fq_codel
net.core.rmem_default = 16777216
net.core.rmem_max = 33554432
net.core.wmem_default = 212992
net.core.wmem_max = 212992
net.ipv4.tcp_rmem = 4096 87380 6291456
net.ipv4.tcp_wmem = 4096 16384 4194304

Git summary:
branch: master @ 7719b900495aa706f8452ab7d4a94dd562e9296e
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
type: genericCC @ d0153f8e594aa89e93b032143cedbfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4defe0edbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b2c8e8f464b1b39
third_party/pcc @ 1afcb958fa0d66d18b623c091a55fecn872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f561388e8d08fba52c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a8e6a781f2b8143ecb978f3c94f2
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3b6b2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 36e635c6178b01e31da4a4ad18c74f9415f19a26
third_party/verus @ db4b47ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a416f9d0dde4735770d43a1fa2851
test from Stanford ppp0 to AWS California 1, 3 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
<table>
<thead>
<tr>
<th>scheme</th>
<th># runs</th>
<th>mean avg tput (Mbit/s)</th>
<th>mean 95th-%ile delay (ms)</th>
<th>mean loss rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>flow 1</td>
<td>flow 2</td>
<td>flow 3</td>
</tr>
<tr>
<td>TCP BBR</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Copa</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TCP Cubic</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>FillP</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>FillP-Sheep</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Indigo</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>LEDBAT</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PCC-Allegro</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PCC-Expr</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>QUIC Cubic</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>SCRReAM</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sprout</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TaoVA-100x</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TCP Vegas</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Verus</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PCC-Vivace</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>WebRTC media</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Run 1: Statistics of TCP BBR

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of TCP BBR — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of TCP BBR

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of TCP BBR — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of TCP BBR

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/bbr_stats_run3.log does not exist
Run 3: Report of TCP BBR — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of Copa

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of Copa — Data Link

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Figure is missing
Run 2: Statistics of Copa

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/copa_stats_run2.log does not exist
Run 2: Report of Copa — Data Link

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Figure is missing
Run 3: Statistics of Copa

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of Copa — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of TCP Cubic

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/cubic_stats_run1.log does not exist
Run 1: Report of TCP Cubic — Data Link

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Figure is missing
Run 2: Statistics of TCP Cubic

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of TCP Cubic — Data Link

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Figure is missing
Run 3: Statistics of TCP Cubic

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/cubic_stats_run3.log does not exist
Run 3: Report of TCP Cubic — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of FillP

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of FillP — Data Link

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Figure is missing
Run 2: Statistics of FillP

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of FillP — Data Link

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Figure is missing
Run 3: Statistics of FillP

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/fillp_stats_run3.log does not exist
Run 3: Report of FillP — Data Link

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Figure is missing
Run 1: Statistics of FillP-Sheep

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of FillP-Sheep — Data Link

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Figure is missing
Run 2: Statistics of FillP-Sheep

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of FillP-Sheep — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of FillP-Sheep

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of FillP-Sheep — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of Indigo

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of Indigo — Data Link

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Figure is missing
Run 2: Statistics of Indigo

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of Indigo — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of Indigo

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/indigo_stats_run3.log does not exist
Run 3: Report of Indigo — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of LEDBAT

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows...
Run 1: Report of LEDBAT — Data Link

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Figure is missing
Run 2: Statistics of LEDBAT

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of LEDBAT — Data Link

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Figure is missing
Run 3: Statistics of LEDBAT

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of LEDBAT — Data Link

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Figure is missing
Run 1: Statistics of PCC-Allegro

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of PCC-Allegro — Data Link

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Figure is missing
Run 2: Statistics of PCC-Allegro

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Figure is missing

Figure is missing
Run 3: Statistics of PCC-Allegro

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of PCC-Allegro — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of PCC-Expr

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of PCC-Expr — Data Link

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Figure is missing
Run 2: Statistics of PCC-Expr

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/pcc_experimental_stats_run2.log does not exist
Run 2: Report of PCC-Expr — Data Link

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Figure is missing
Run 3: Statistics of PCC-Expr

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of PCC-Expr — Data Link

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Figure is missing
Run 1: Statistics of QUIC Cubic

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows

58
Run 1: Report of QUIC Cubic — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of QUIC Cubic

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of QUIC Cubic — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of QUIC Cubic

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/quic_stats_run3.log does not exist
Run 3: Report of QUIC Cubic — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of SCReAM

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of SCReAM — Data Link

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Figure is missing
Run 2: Statistics of SCReAM

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of SCReAM — Data Link

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Figure is missing
Run 3: Statistics of SCReAM

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of SCReAM — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of Sprout

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/sprout_stats_run1.log does not exist
Run 1: Report of Sprout — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of Sprout

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/sprout_stats_run2.log does not exist
Run 2: Report of Sprout — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of Sprout

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/sprout_stats_run3.log does not exist
Run 3: Report of Sprout — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of TaoVA-100x

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/taova_stats_run1.log does not exist
Run 1: Report of TaoVA-100x — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of TaoVA-100x

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of TaoVA-100x — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of TaoVA-100x

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of TaoVA-100x — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of TCP Vegas

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of TCP Vegas

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-flows-3-flows...
Run 2: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of TCP Vegas

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of TCP Vegas — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of Verus

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 1: Report of Verus — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of Verus

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of Verus — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of Verus

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of Verus — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of PCC-Vivace

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/vivace_stats_run1.log does not exist
Run 1: Report of PCC-Vivace — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of PCC-Vivace

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/vivace_stats_run2.log does not exist
Run 2: Report of PCC-Vivace — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of PCC-Vivace

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of PCC-Vivace — Data Link

Figure is missing

Figure is missing
Run 1: Statistics of WebRTC media

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows/webrtc_stats_run1.log does not exist
Run 1: Report of WebRTC media — Data Link

Figure is missing

Figure is missing
Run 2: Statistics of WebRTC media

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 2: Report of WebRTC media — Data Link

Figure is missing

Figure is missing
Run 3: Statistics of WebRTC media

/home/ubuntu/pantheon/data/2018-08-22T17-30-Stanford-ppp0-to-AWS-California-1-3-runs-3-flows
Run 3: Report of WebRTC media — Data Link

Figure is missing

Figure is missing